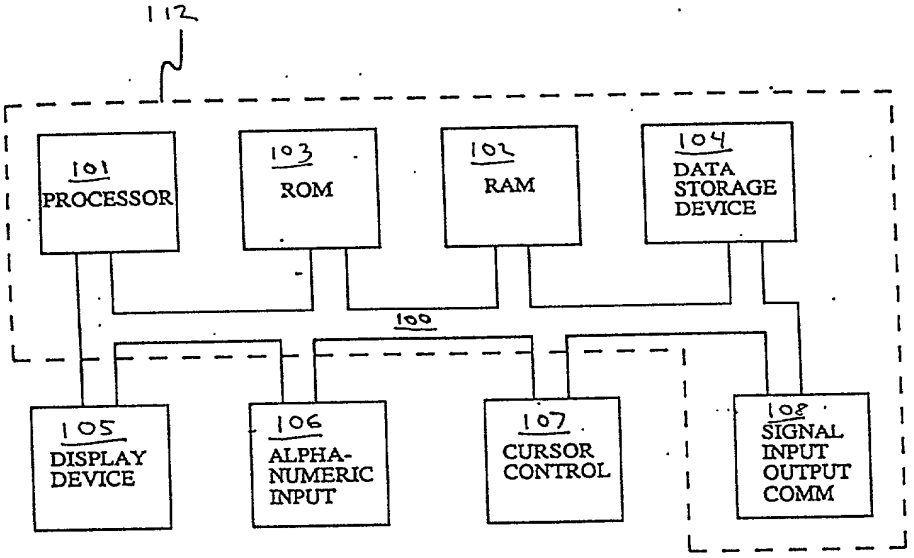
112
101
PROCESSOR
103
ROM
102
RAM
104
DATA
STORAGE
DEVICE
100
105
DISPLAY
DEVICE
106
ALPHA-
NUMERIC
INPUT
107
CURSOR
CONTROL
108
SIGNAL
INPUT
OUTPUT
COMM

FIG. 1

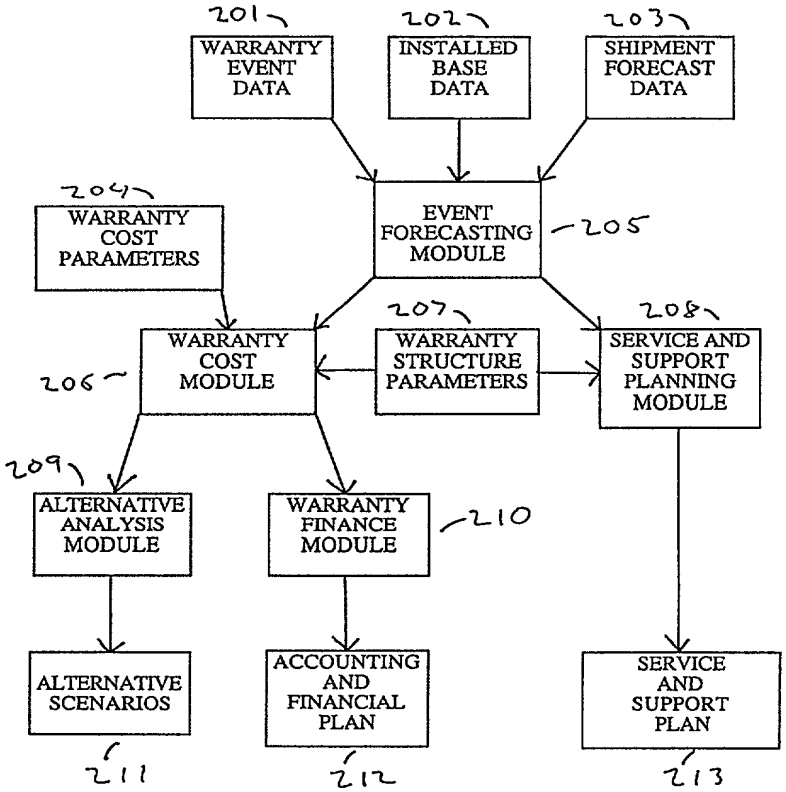
201
WARRANTY EVENT DATA
202
INSTALLED BASE DATA
203
SHIPMENT FORECAST DATA
204
WARRANTY COST PARAMETERS
EVENT FORECASTING MODULE
205
206
WARRANTY COST MODULE
207
WARRANTY STRUCTURE PARAMETERS
208
SERVICE AND SUPPORT PLANNING MODULE
209
ALTERNATIVE ANALYSIS MODULE
WARRANTY FINANCE MODULE
210
ALTERNATIVE SCENARIOS
211
ACCOUNTING AND FINANCIAL PLAN
212
SERVICE AND SUPPORT PLAN
213

FIGURE 2

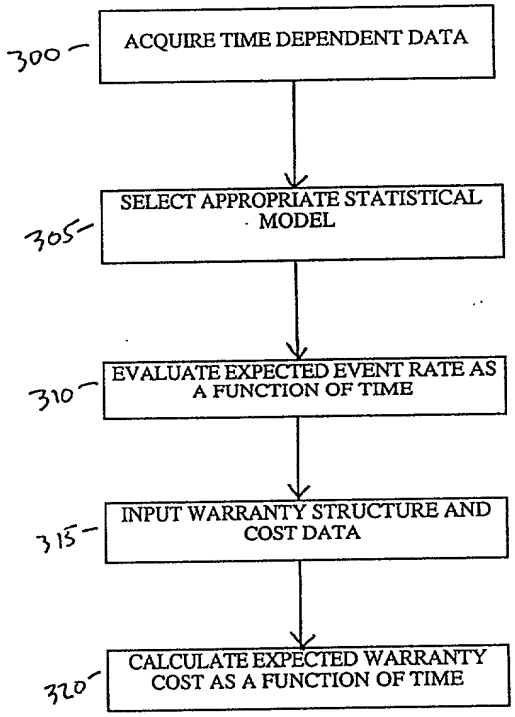
300
ACQUIRE TIME DEPENDENT DATA
305
SELECT APPROPRIATE STATISTICAL MODEL
310
EVALUATE EXPECTED EVENT RATE AS A FUNCTION OF TIME
315
INPUT WARRANTY STRUCTURE AND COST DATA
320
CALCULATE EXPECTED WARRANTY COST AS A FUNCTION OF TIME

FIGURE 3

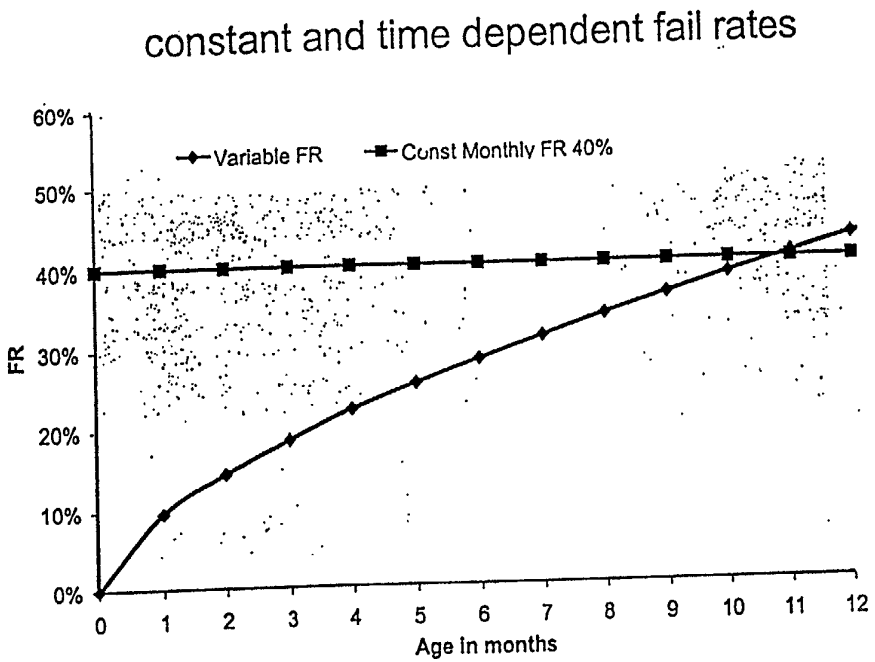
constant and time dependent fail rates
60%
50%
40%
30%
20%
10%
0%
FR
Variable FR
Const Monthly FR 40%
0
1
2
3
4
5
6
7
8
9
10
11
12
Age in months

Figure 4

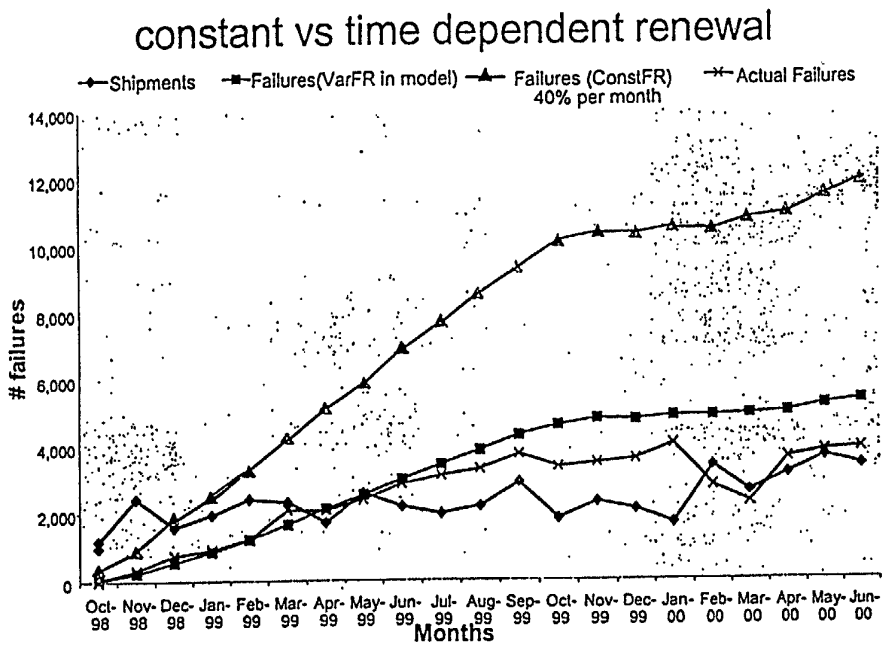
constant vs time dependent renewal
Shipments
Failures(VarFR in model)
Failures (ConstFR) 40% per month
Actual Failures
failures
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Oct-98 Nov-98 Dec-98 Jan-99 Feb-99 Mar-99 Apr-99 May-99 Jun-99 Jul-99 Aug-99 Sep-99 Oct-99 Nov-99 Dec-99 Jan-00 Feb-00 Mar-00 Apr-00 May-00 Jun-00
Months

Figure 5

TO3280 "3mTM6D

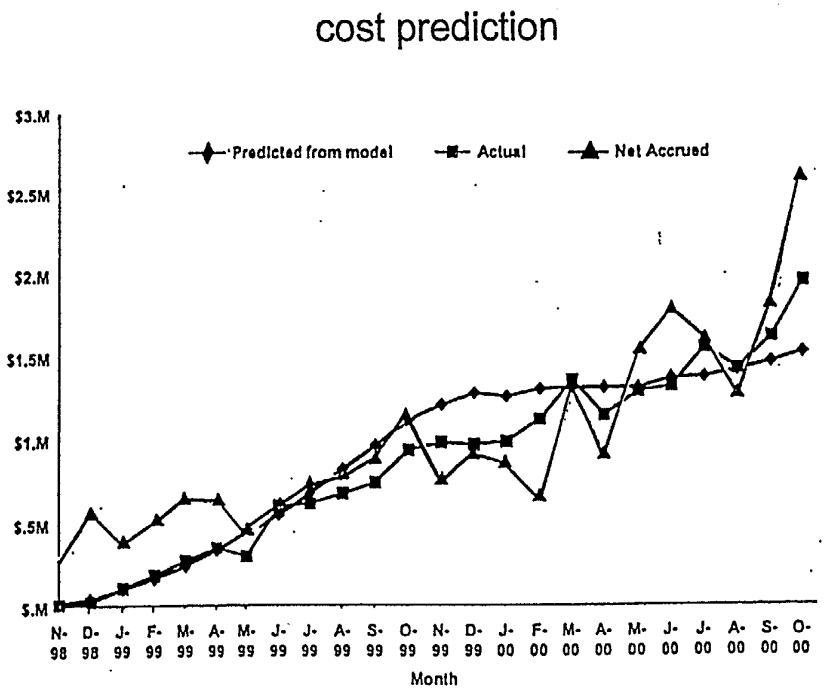

Figure 6